### REMARKS

#### Interview request

Applicant respectfully requests a telephonic interview after the Examiner has reviewed this response and amendment. Applicant requests the Examiner call Applicant's representative at telephone number (760) 473-9472.

# Claim status; basis for claim amendments and new claims

Applicant herein amends claims 64, 65, 70, 71, and 79, and adds new claims 92 and 93. The amendments and new claims find basis in the claims as originally filed and in the specification throughout. Representative basis is at page 15, line 12 to page 17, line 4; at page 18, lines 4-14; at page 20, line 13 to page 22, line 7; and in Figures 18, 19, 30, and 31 of the specification, for example. Accordingly, no prohibited new matter is introduced by entry of the amendments herein. Applicant thanks the Office for noting that claims 82 and 83 are allowed.

## Summary of outstanding claim rejections

Applicant acknowledges the withdrawal of rejections under 35 U.S.C. 112 and 35 U.S.C. 103(a). The Office rejected claims in the outstanding action for alleged indefiniteness, for being unclear, and for lack of written description, which rejections are summarized hereafter:

- Claims 64, 65, 70, 71, and 79 were rejected under 35 U.S.C. 112, second paragraph, for alleged indefiniteness; and
- ii. Claim 79 was rejected under 35 U.S.C. 112, for alleged lack of written description.

The claim amendments herein are introduced solely to expedite prosecution without prejudice or disclaimer of any previously claimed subject matter. Applicant has not dedicated or abandoned any unclaimed subject matter and has not acquiesced to any rejections or objections made by the Office by introducing the amendments and new claims

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herein. Applicant expressly reserves the right to pursue prosecution of any presently excluded or cancelled subject matter or embodiments in one or more future continuing patent applications.

## Rejection for alleged indefiniteness

Claims 64, 65, 70, 71, and 79 were rejected by the Office under 35 U.S.C. 112, second paragraph, as indefinite. The rejection respectfully is traversed in its entirety, including all reasons and rationale for the rejection, and Applicant submits that the rejection is inapplicable to the claims herein.

Claims 64 and 65 were rejected as unclear "with respect to the compressed data values and the step of compressing." The Office stated there was a lack of clarity in that in claim 64, "lines 10-11 recite 'compress the intermediate dataset, the intermediate dataset having a plurality of data values associated with respective points in an array of data' and lines 18-19 recite a compressed data value is a real number..." The Office noted that it was unclear if the intermediate data set as a whole is compressed or the data values of the intermediate data set are compressed. The Office suggested that "if applicant intends the data values of the intermediate data set to be compressed, then amendment of the claims to reflect applicant's intention would be appropriate." Claims 64 and 65 have been amended and clarify that the compressed data comprises compressed data points. Support for these amendments may be found throughout the specification, including, for example, page 15, line 12-page 17, line 4, and Figures 18 and 19.

Claims 70 and 71 were rejected as unclear with respect to the phrase "the residual baseline is derived from data remaining in the intermediate data set after the areas around the putative peaks have been removed." The Office noted that "if applicant intended 'derived from' to mean an act of generating as in line 10 of the claim, then an amendment to such would be appropriate." Claims 70 and 71 have been amended to clarify the term "derived from." Support for these amendments may be found throughout the specification, including, for example, within claims 70 and 71.

Claims 70 and 71 were rejected as unclear with repect to the term "an area" as recited in line 20 of claim 70 and line 18 of claim 71. The Office stated that as to claim 70, line 20 does not provide an indication of the relationship of the area recited in line 20 to the

area of line 16 of the same claim. The Office suggested that if "the applicant intended the part of the area surrounding the putative peak to be **the** 'area equal to twice the width of the Gaussian is removed from the left of the center of the putative peak,' then amendment of line 20-21 to 'the area' and 'each putative peak' may be appropriate." Applicant has amended claims 70 and 71 to clarify that the "area" cited in the wherein clauses near the end of each claim refers to the area previously cited in each claim.

Claim 79 was rejected as unclear with repect to the phrase "deriving a peak probability." The Office suggested that "if applicant intends the term 'deriving' to mean that probabilities are determined or calculated then the claim should be appropriately amended." Claim 79 has been amended to clarify the term "deriving." Support for this amendment may be found throughout the specification, including, for example, at page 20, line 13 to page 22, line 7, and at Figures 30 and 31.

# Rejection for alleged lack of written description

Claim 79 was rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The rejection respectfully is traversed in its entirety, including all reasons and rationale for the rejection, and Applicant submits that the rejection is inapplicable to the claims herein.

The Examiner stated that the claim "recites the derivation of a peak probability from an allelic ratio." But, the Examiner noted that a "review of the specification reveals that a peak probability is first determined from a probability profile (p. 20, lines 13-18). The specification guides that allelic ratio is used to determine an allelic penalty (p. 21, lines 13-22). The specification teaches that the peak probability determined from the peak profile is multiplied by the allelic penalty to calculate a final peak probability (p. 22, lines 1-5). The claim broadly recites that a peak probability is derived from an allelic ratio. The teaching in the specification fails to provide written description to derive an peak profile from an allelic ratio alone." Thus, the specification sets out steps by which a peak probability may be determined, steps by which an allelic penalty may be assigned, and the calculation of a final peak probability by multiplying the peak probability by the allelic penalty. Claim 79 has been amended to more closely follow the process discussed in the specification by which the final peak probability is determined from the peak probability. New claims 92 and 93 have been added to add steps by which the peak probability may be determined, and steps

by which the allelic penalty may be assigned. Support for this amendment may be found, for example, at page 20, line 13 to page 22, line 5.

### CONCLUSIONS

In view of the foregoing amendments and remarks, Applicant respectfully submits that the Office can properly withdraw the outstanding claim rejections and that the pending claims herein are in condition for allowance. Applicant therefore respectfully requests that the Office withdraw the outstanding claim rejections and issue a notice of allowance.

Applicant has requested a telephone conference with the undersigned representative to expedite prosecution of this patent application. Applicant's representative can be contacted by telephone at (760) 473-9472.

In the unlikely event a fee calculation document or other pertinent document is separated from this submission and the Office determines that an extension and/or other relief is required, Applicant petitions for any required relief, including extensions of time, and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. 50-3473

Respectfully submitted,

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